WHAT SOCIO-DEMOGRAPHIC CHARACTERISTICS DO INFLUENCE THE LEVEL OF TOURIST'S SATISFACTION IN MONTENEGRO? EMPIRICAL ANALYSIS

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Abstract

Montenegro as tourist destination is committed to providing a high quality experience for the tourists while carefully managing the use of a rare natural resource. In order to achieve the strategic objectives in sustainable tourism development in the future, the main focus should be given to the analysis of the main determinants of tourist satisfaction. Using a database that provides information on tourist travel behaviour and satisfaction during her/his stay in Montenegro, we have conducted empirical analysis to understand if the socio-demographic characteristics are associated with the level of tourist's satisfaction. The effect of socio-demographic characteristics is measured through five dimensions: gender, age, country of residence, occupation and wage. Using multinomial logit model we analyze above mentioned socio-demographic characteristics and their influence on the level of tourist's satisfaction in Montenegro.

Key words: *Tourist satisfaction; Socio-demographic characteristics; Empirical analysis; Experience; Montenegro.*

JEL Classification: *L83*

INTRODUCTION

The importance of tourism sector to Montenegro, as a strategic economic development tool is clearly evident from the decisions taken at the highest levels of government to prioritize the industry's development. Tourism is seen as the prosperity engine, accounting for 21% of national GDP, and generating almost 30,000 jobs (WTTC, 2009). Its contribution to GDP has increased steeply over the past eight years, driven by fast growth in foreign visitor arrivals and tourist-related investment. Nevertheless, further rapid growth is expected over the coming period with significant implications on employment, further investments, and export. Montenegro, as a tourism destination is committed to providing a high quality service for the tourists. In this sense, the use of rare natural resources is carefully managed and monitored. In order to achieve the strategic objectives in sustainable tourism development in the future, Montenegro has invested much effort to shift its focus from traditional package to tour holidays in coastal regions in order to create a higher-yield tourism product.

The tourism literature demonstrates that tourism products and services need to match tourists' expectations, in order to achieve their satisfaction. In fact, the quality of experience has been considered as a tool for increasing destination competitiveness. Therefore, many studies analyze declared tourist satisfaction with different aspects of the destination (e.g. Alegre and Cladera, 2006; Baker and Crompton, 2000). Scott, Tian, Wang, and Munson (1995) developed a tourism satisfaction model that is based on the cumulative nature of tourists' experiences. Furthermore, tourist satisfaction influences significantly tourist estimation of the destination's different attributes. However, it is not enough to analyze his/her satisfaction, measured on an ordinal scale (very satisfied, satisfied, not satisfied), but to analyse the factors and their interrelationships in the process of the tourist satisfaction for a better understanding of the consumer psychology, as well.

The originality of our contribution is twofold. Firstly, we examine the relationship between tourist's satisfaction and socio-demographic characteristics.

Moreover, we will determin the effect by realizing which socio-demographic characteristic improves the level of tourist's satisfaction in Montenegro in order to understand what type of tourist suits for Montenegro. Secondly, we will use original database from Montenegro made by Ministry of Tourism which covers significant factors that could be associated with tourist satisfaction.

The reminder of this paper is organized as follows. Section 2 reviews the literature related to the impact of socio-demographic characteristics on tourist's satisfaction. Section 3 presents the data and model specification. The results are provided and discussed in section 4. Section 5 concludes and suggests future directions of research.

LITERATURE REVIEW

Based on a review of the literature, let us consider theoretical rationales that predict which factors determine the level of tourist satisfaction. Actually, we propose five hypotheses.

Age. Walmsley and Jenkins (1993) analyzed the perceived image of different tourist resorts in Australia, and they found that the image of some places differed depending on the visitor's age. In the same sense, Baloglu and McCleary (2000) also found that an individual's age influenced the perceived image of various tourist destinations. We therefore hypothesize:

H1: The tourist's age is positively associated to the tourist's satisfaction, ceteris paribus.

Gender. MacKay and Fesenmaier (1997) analyzed how the visual content of tourist advertising material affected the creation of image, and reached the conclusion that tourist's gender affect the perceived image. Furthermore, Chen and Kerstetter (1999) in a study of the image of Pennsylvania as a rural tourism destination concluded that the tourists' gender significantly influenced the perceived image. However, the study carried out by Baloglu (1999), which analyzed the image of the US among German tourists, found no statistically significant relationships between the perceived image and the demographic variables of gender, income and education. Even that, we formulate the following hypothesis:

H2: The tourist's gender is positively associated to the tourist's satisfaction, ceteris paribus.

Country of residence. Most of the empirical work has attempted to analyze the differences in destination images arising from cultural factors focus on the tourists' geographical origin. For example, Calantone et al (1989) and Chen and Kerstetter (1999) found significant relationship between the perceived image and the tourists' country of origin. We therefore hypothesize:

H3: The tourist's country of residence is positively associated to the tourist's satisfaction, ceteris paribus.

Occupation. Beerli and Martin (2003) demonstrates that the tourist's socio-economic characteristics such as occupation are the factors that influence the perceptions of places what could be further reflected on the level of tourist's satisfaction. Related to these arguments, we formulate the following hypothesis:

H4: The tourist's occupation is positively associated to the tourist's satisfaction, ceteris paribus.

Wage. The level of wage is also considered to be important for the tourist satisfaction. For instance, MacKay and Fesenmaier (1997) analyzed how the visual content of tourist advertising material affected the formation of image, and found that level of income is significant for the perceived image. We therefore hypothesize:

H5: The tourist's wage is positively associated to the tourist's satisfaction, ceteris paribus.

DATA AND MODEL SPECIFICATION

The database and variables. The data is extracted from the Montenegrin survey called Guest Survey 2010. The creation of the database is financed and organized by the Ministry of Tourism of Montenegro, the National Tourism Organisation of Montenegro and the German Organization for Technical Cooperation (GTZ). The main objective of the survey is to obtain representative view regarding tourist travel behaviour and satisfaction during their stay in Montenegro. The questionnaire contains 34 questions and it was translated in seven languages (Montenegrin, English, French, Italian, Albanian, German and Russian). The survey was conducted in 21 municipalities in Montenegro, from July to the end of September 2010. It was performed by 28 researchers. The time allocated for tourists to fill the questionnaire was not limited but it took approximately 30 minutes. The number of tourists who have answered the questionnaire is 1 442. The majority of tourists were located in the south of the country (76.8%), then from the central part (16.9%) and 6.2% of tourists who have answered the questionnaire were from the north part of Montenegro. After deleting observations that do not provide all necessary information for this research, we work with a sample of 1 244 tourists.

Dependent variable. The dependent variable denoted *TOURIST SATISFACTION* is a categorical variable. We have used information on the tourist's overall satisfaction during his/her stay in Montenegro and thus classified level of the tourist's satisfaction as Very Satisfied (those tourists that declare that are very satisfied), Satisfied (those tourist who declare that they are satisfied) or Not Satisfied (those tourists who declare that they are less or not satisfied). On the basis of this classification, we have created a variable *S1j* that takes the value of *S1 = 1* if the tourist is very satisfied, *S2j* = 2 if the tourist is satisfied and *S0j* = 0 if a firm is less or not satisfied. The distribution of each

category of tourist satisfaction is: 31%, 63% and 6%, respectively.

Explanatory variables. To test H1 (gender), we have used a dummy variable *GENDER* that equals 1 if the tourist is a man. The H2 (age) is tested using continuous variable that indicates tourist's age. In order to analyse the effect of the country of residence on tourist's satisfaction in H3 we used four dummies, *COUNTRY1* equals 1 if the tourist comes from the Ex Yu countries (Bosnia and Herzegovina, Croatia, Macedonia and Serbia), *COUNTRY2* equals 1 if the tourists comes from the EU countries, *COUNTRY 3* equals 1 if the tourist comes from the ex Soviet Union countries and *COUNTRY4* equals 1 if the tourist comes from The rest of World. The H4 analyses the effect of tourist's occupation on his/her satisfaction and it is tested using six dummy variables, *OCC1* has a value 1 if the tourist is self-employed, *OCC2* has a value 1 if the tourist is employed in the private company, *OCC3* has a value 1 if the tourist works as a state functionary, *OCC4* has a value 1 if the tourist is retired, *OCC5* has a value 1 if the tourist is a student and *OCC6* has a value 1 if the tourist is not-employed. Finally, to test hypothesis H5, we have used three dummy variables, *WAGE1* that equals 1 if the tourist's monthly net income of the household is up to 900 Euros, *WAGE2* that equals 1 if the tourist's monthly net income of the household is between 900 and 3000 Euros and *WAGE3* that equals 1 if the tourist's monthly net income of the household is more than 3000 Euros.

Additionally, to properly identify the relationship among tourist's socio-demographic characteristics and their level of satisfaction in Montenegro, our econometric model includes the features of vacation. Following previous studies (e.g., Yuksel, 2001; Lehtoa, O'Learyb and Morrisona, 2004; Weber and McCleary, 2007; Thomson and Schofield, 2007), we include control variables shown to be important determinants of tourist's satisfaction such as number of nights, previous experience, number of vacations, type of accommodation and type of transport.

The variables used for estimation are indicated in Table 1. No problem of multicolinearity has been detected.

Table 1 - Definition of variables and sample statistics

Variable	Definition	Mean	Standard deviation
Dependent variables			
TOURIST SATISFACTION	The degree of tourist's satisfaction Multinomial variable (=1 if very satisfied =2 if satisfied =0 if not satisfied)	1.75	0.55
Independent variables			
NUMBER OF NIGHTS	The number of nights that a tourist spent in Montenegro (continuous variable)	3.00	1.51
PREVIOUS EXPERIENCE	The tourist visited Montenegro before. Dummy variable (=1 if yes)	0.68	0.48
NUMBER OF VACATIONS	The number of vacations that a tourist has during a year. (continuous variable)	1.45	0.93
TYPE OF ACCOMODATION	ACCO1 (bead);	0.42	0.49
	ACCO2 (bead and breakfast);	0.09	0.29
	ACCO3 (half-board);	0.17	0.38
	ACCO4 (full-board);	0.09	0.29
	ACCO5 (all inclusive);	0.04	0.17
	ACCO6 (other possibilities)***(ref)***;	0.19	0.39
TYPE OF TRANSPORT	TRANS1 (plane);	0.33	0.47
	TRANS2 (bus);	0.23	0.42
	TRANS3 (car);	0.34	0.47
	TRANS4 (train) ***(ref)***;	0.10	0.29
GENDER	The tourist is a man. Dummy variable (=1 if yes)	0.52	0.50
AGE	The tourist's age. (continuous variable)	34.59	12.78
COUNTRY OF RESIDENCE	COUNTRY1 (Ex Yugoslavia)***(ref)***;	0.61	0.49
	COUNTRY2 (EU);	0.25	0.43
	COUNTRY3 (Countries from ex Soviet Union);	0.11	0.31
	COUNTRY4 (The rest of World)	0.03	0.16
OCCUPATION	The tourist works:		
	OCC1 (self-employed) ***(ref)***;	0.18	0.39
	OCC2 (employed at the private company);	0.42	0.49
	OCC3 (state functionary);	0.06	0.23
	OCC4 (retired);	0.07	0.26
	OCC5 (student);	0.23	0.42
	OCC6 (not-employed);	0.04	0.18
WAGE	The tourist's wage is:		
	WAGE1 (up to 900 Euro) ***(ref)***;	0.15	0.36
	WAGE2 (from 900 to 3000 Euro);	0.50	0.50
	WAGE3 (more than 3000 Euro);	0.35	0.48

The Empirical Model. We assume that tourists choose one of the mutually exclusive alternatives characterised by a categorical variable. This variable reflects three distinct ordered alternatives: Very Satisfied (alternative *j* = 1), Satisfied (*j* = 2) and Not Satisfied (*j* = 3). A Multinomial Logit model was used to evaluate the impact of the tourist's socio - demographic characteristics on their likelihood to choose one of the three categories of the satisfaction. This kind of model assumes that the error terms in the firm utility function are independently and identically distributed (Greene, 2003). In fact, multinomial logit models are used to model relationships between a multinomial response variable and a set of regressors. These multinomial response models can be classified into two distinct types, depending on whether the response variable has an ordered or an unordered structure.

Therefore, using an ordered multinomial logit model, we want to analyse the probability for a tourist to decide to choose one of the three types of the satisfaction. In the multinomial logit model, the probability that the tourist *i* chooses the category of satisfaction *j*, $\forall\, j = 0, 1, 2,$ is defined by:

$$\text{Prob}(Satisfaction_i = j) = \frac{Exp(x_i\beta_j)}{\sum_{k=0}^{2} Exp(x_i\beta_k)} = \frac{Exp(x_i\beta_j)}{1+\sum_{k=0}^{2} Exp(x_i\beta_k)} \quad (1)$$

where X_i represents the vector of variables for tourist *i* (*Number of nigts, Previous experience, Number of vacations, Type of accomodation, Type of transport, Gender, Age, Occupation, Wage*); $\beta_1 - \beta_9$ are slope coefficients to be estimated; $Satisfaction_i$ represents dependent variables with three categories of Tourist Satisfaction. The idea behind the multinomial logit model is that we directly model the probability that a tourist choose a specific satisfaction category (three possible outcomes) as a function of observed characteristics.

ESTIMATION RESULTS AND DISCUSSION

Logit estimation results are presented in Table 2.

Table 2 - Determinants of tourist's satisfaction

Variables		Estimate	Standard Error	Estimate	Standard Error
Intercept		-0.22	0.94	1.85*	0.89
Number of nights		-0.18*	0.09	-0.25***	0.08
Previous experience		0.72*	0.36	0.55	0.34
Number of vacations		-0.34***	0.11	-0.44***	0.11
Type of accomodation	ACCO1	-0.20	0.40	0.06	0.38
	ACCO2	-1.01*	0.56	-0.14	0.51
	ACCO3	-0.73	0.46	-0.80*	0.44
	ACCO4	-0.28	0.52	-0.62	0.51
	ACCO5	13.48	575.7	13.13	575.7
Type of transport	TRANS1	0.47	0.53	-0.54	0.48
	TRANS2	1.18**	0.52	0.39	0.47
	TRANS3	0.70	0.48	-0.09	0.43
Gender		-0.29	0.28	-0.25	0.27
Age		0.02	0.02	0.02	0.02
Country of residence	EU	1.18***	0.40	0.78**	0.38
	Ex Soviet Union	2.31***	0.69	1.55***	0.68
	rest of the World	14.96	650.1	14.32	650.1
Occupation	OCC1	0.54	0.37	0.07	0.35
	OCC3	-0.41	0.39	-0.67	0.46
	OCC4	1.70	1.13	1.14	1.12
	OCC5	0.80*	0.44	0.70*	0.41
	OCC6	-0.29***	0.73	0.04	0.67
Wage	WAGE2	1.19***	0.35	1.11***	0.33
	WAGE3	0.95***	0.40	1.32***	0.38
SC				2055.011	
SC(Intercept only)				2201.293	
Likelihood ratio				181.4812	
Number of observations				1 244	
Number of tourists in each category:					
Very Satisfied				388	
Satisfied				783	
Not Satisfied				73	

(*), (**), (***) indicate parameter significance at the 10, 5 and 1 per cent level, respectively

The findings provide empirical evidence that number of nights and number of vacations have significant but negative impact on the level of tourist's satisfaction. Hence, from these results we reject our first and second hypothesis, that is, number of nights / number of vacations influences positively tourist's satisfaction. The results also indicate that the variable previous experience has significant and positive effect of being very satisfied, but is insignificant for being satisfied. Among the types of accommodation, B&B

and half board have significant but negative impact on the tourist's satisfaction. Concerning the type of transport, tourists who traveled by bus express higher level of satisfaction. The other types of transport have no effect on the level of satisfaction.

Our findings indicate that gender and age do not affect the level of satisfaction since those variables are not significant. Concerning occupation, being a student predicts satisfaction. Furthermore, being non-employed has negative impact on being very satisfied. In term of country of residence, being from Europe has positive and significant impact on being satisfied and very satisfied. Interestingly, tourists from the counties of Ex Soviet Union express higher level of satisfaction. From estimated results we may conclude that wage has positive and significant impact on satisfaction, what confirms our hypothesis that level of satisfaction is positive associated with higher wage.

CONCLUSION

Using a database that provides information on tourist travel behaviour and satisfaction during their stay in Montenegro, we have conducted empirical analysis to understand if the socio-demographic characteristics are associated with the level of tourist's satisfaction. The effect of socio-demographic characteristics is measured through 10 dimensions classified into two categories: the features of vacation (number of nights, previous experience, number of vacations, type of accommodation and type of transport) and tourist's socio-demographic characteristics (gender, age country of residence, occupation and wage). We find that level of wage is positively and significantly correlated with the tourist's satisfaction. Also, tourist from Europe and Ex Soviet Union are very satisfied with their stay in Montenegro. On the other side, we find that number of nights and number of vacations have significant effect but with negative sign, what induces that tourists who stay longer in Montenegro and travel more during the year are not satisfied with their stay in Montenegro. However, tourists who already have travelled to Montenegro express high satisfaction with their stay.

One implication of these results is that policy makers have to include these results into the development of future destination marketing strategy and creation of superior level of experience to different market segments. The estimation results unambiguously show that tourists with higher wage and those who come from Europe and counties of Ex Soviet Union are very satisfied with their stay in Montenegro. However, our study is only a first step towards a complete assessment of the tourist travel behavior and satisfaction. Future research should develop supplemental indicators in order to assess the effects of different socio-economic and demographic characteristics on tourist's satisfaction. Such inquiry could shed new light on issues that might improve overall tourism strategy of Montenegro.

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